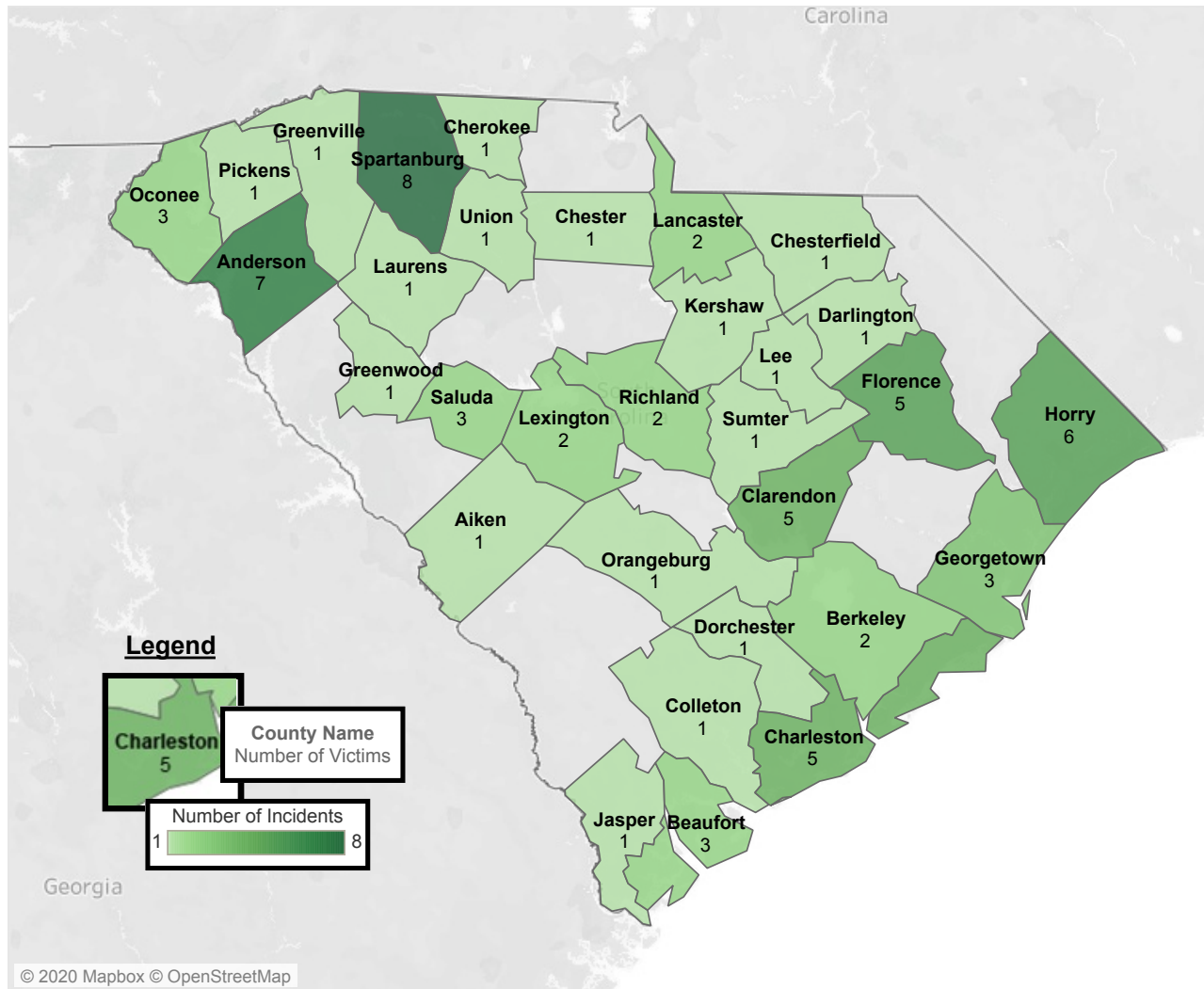


# 2019 Fire Fatality Summary Report

South Carolina Office of State Fire Marshal  
Community Loss Education and Response (CLEAR) Team



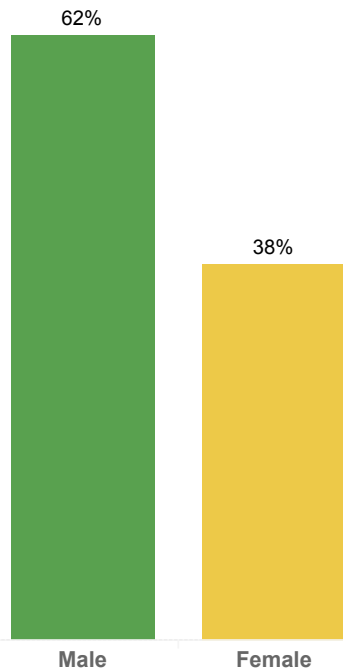
These findings are made possible by the research efforts of the CLEAR Team. In some cases, the percentages may not add up to 100% due to rounding. If you would like more information or outreach ideas based on the findings, please call South Carolina State Fire at (803) 896-9895.

This report version was last updated on May 4, 2020.

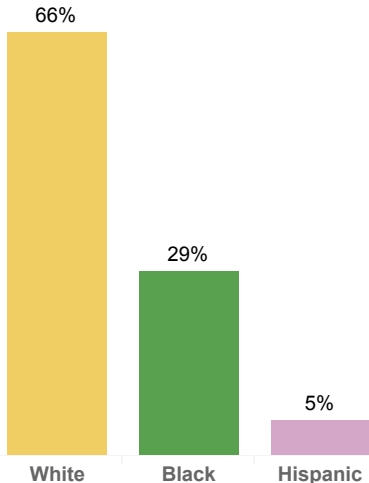
## Fire Fatality Victim Profile

In 2019, there were 73 deaths from 67 incidents. The victims of fatal fires were reported in 32 of 46 counties, with the most incidents happening in Spartanburg, Anderson, Horry, and Florence counties. These counties, plus Clarendon and Charleston had the most victims. Most incidents had one victim; however, six incidents had two victims each. Victims were mostly male, and 65 percent were older than the age of 50. White victims accounted for about two-thirds of all victims, followed by black victims at 29 percent, and Hispanic victims at five percent. Victims were typically found in residences, specifically single-family dwellings and mobile homes.

### Victim Gender



### Victim Race



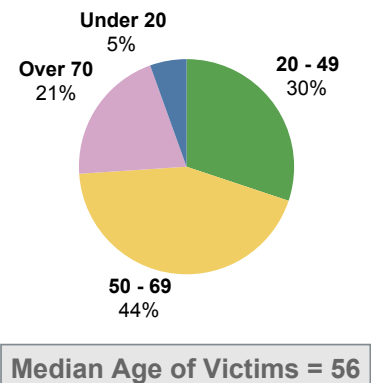
### Incidents and Victims per County

	Incidents	Victims
Spartanburg	8	8
Anderson	7	7
Horry	5	6
Florence	5	5
Clarendon	4	5
Charleston	4	5
Saluda	2	3
Oconee	2	3
Georgetown	3	3
Beaufort	2	3
Richland	2	2
Lexington	2	2
Lancaster	2	2
Berkeley	2	2
Union	1	1
Sumter	1	1
Pickens	1	1
Orangeburg	1	1
Lee	1	1
Laurens	1	1
Kershaw	1	1
Jasper	1	1
Greenwood	1	1
Greenville	1	1
Dorchester	1	1
Darlington	1	1
Colleton	1	1
Chesterfield	1	1
Chester	1	1
Cherokee	1	1
Aiken	1	1
<b>Grand Total</b>	<b>67</b>	<b>73</b>

### Occupancy Type

Single Family Dwelling	58%
Mobile Home	24%
Vehicle	12%
Multi-Family Dwelling	1%
Retail Business	1%
Outdoor Area	1%
Small Storage	1%

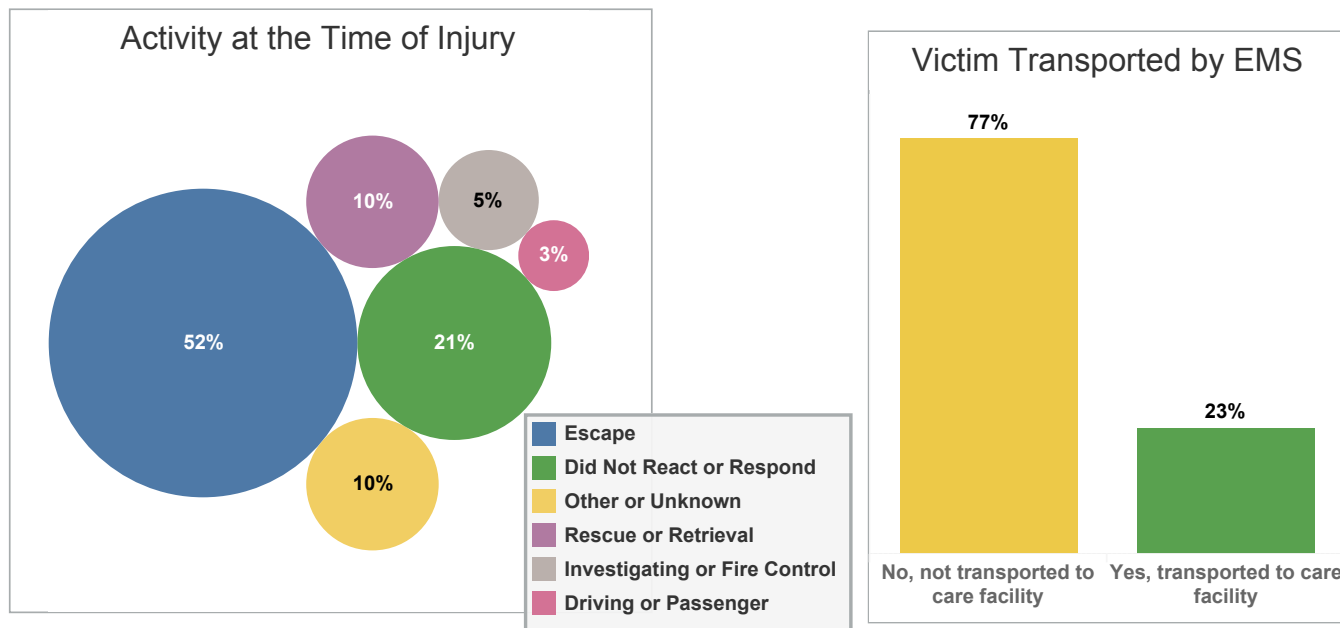
### Victim Age



### Multiple Fatality Incidents

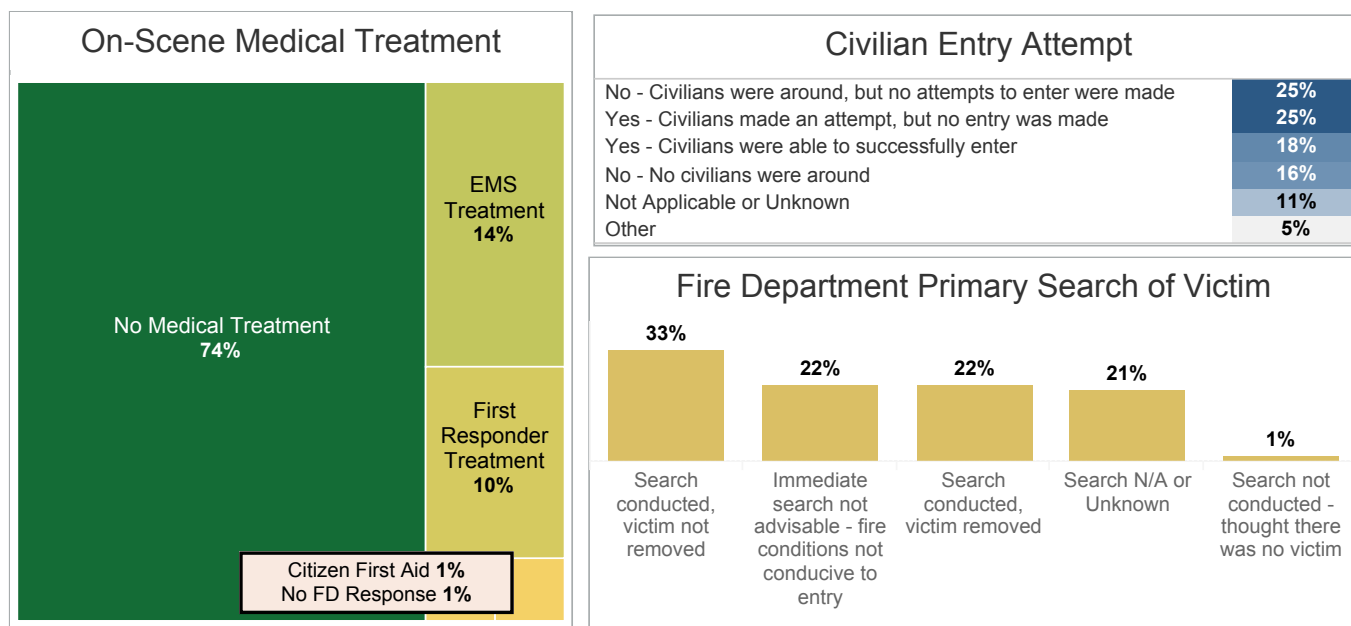
One Victim	91%
More than One Victim	9%

## Fire Fatality Victim Profile



Victims were generally found to be attempting escape when they were injured. Fifty-one percent of victims attempted an escape, while only six percent of victims were successful in their attempt. Twenty percent did not have time to respond to the emergency before succumbing. In 77% cases, the victim was pronounced deceased at the fire scene. In 29 cases (42%), citizens attempted to rescue victims. Prior to fire department arrival, unsafe conditions did not allow for citizens to assist the victim in escaping in about one in five cases. In 22 percent of cases, the first department could not attempt rescue during initial attack, due to dangerous conditions. Victims were only removed during search and rescue operations in one out of about every 4.5 fatal fires.

The CLEAR Team was notified about fire fatalities within 24 hours of the death 78 percent of the time, and responded on-scene 54 percent of the time. This response allows us to understand more about why some fires are fatal and connect with fire departments and their communities to prevent further tragedies.



## Human Factors Profile

Human factors were deemed present in 82 percent of all incidents, with 72 percent of incidents having more than one human factor present. The human factors below account for some of the factors seen in this year's incidents; an inability to be notified of an emergency, an inability to go to a safe area, and risky behaviors contributed to a person's demise in the event of a fire.

One-hundred percent of vehicle-related and open area-related fire fatalities had at least one human factor which prevented the victim from surviving the fire.

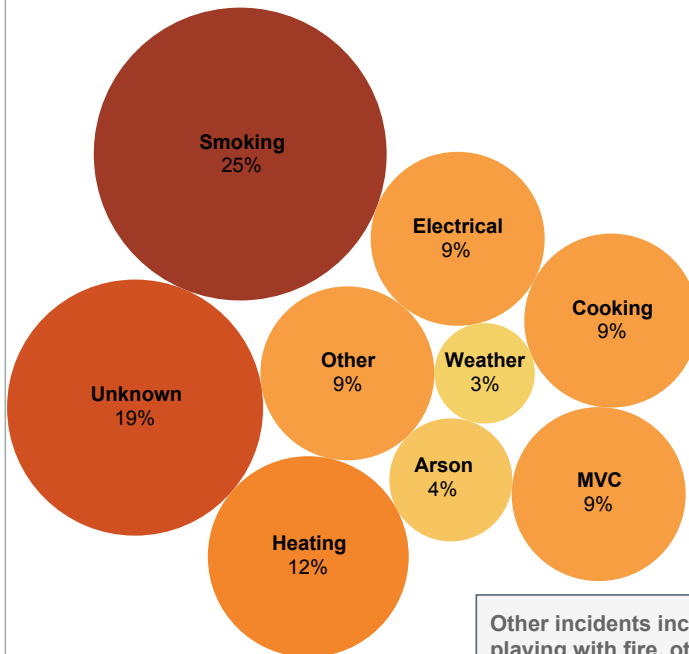
Five incidents had medical oxygen as a known human factor, and 100 percent of those incidents had smoking as an additional human factor present.



## Fatal Incidents Profile

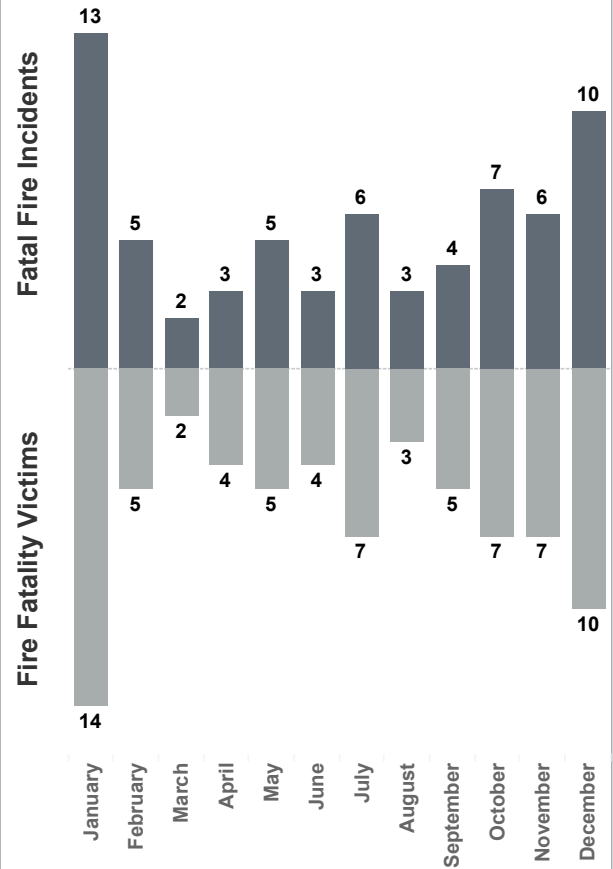
When cause could be determined, fatal incidents were most likely caused by improperly discarded smoking materials or malfunctioning or improperly-used heaters. Incidents occurred on all days of the week, with an above average amount on Tuesday and Friday. Fatal incidents generally occurred during overnight hours, from 12 a.m. to 6 a.m., and in January and December.

### Most Probable Cause of Incidents



Other incidents include: suicide, outdoor burning, playing with fire, other vehicle fires, and explosion.

### Incidents by Month

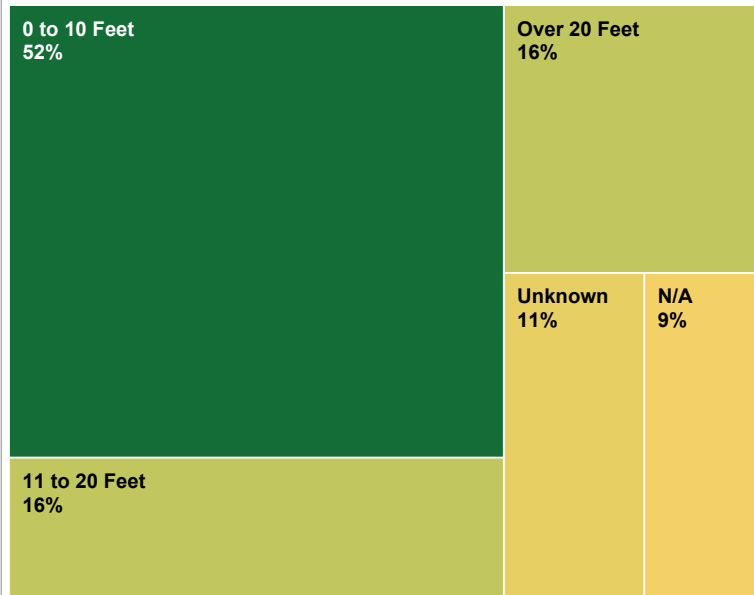


### Days and Times of Incidents Occurring

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Grand Total
12 AM to 3 AM	2		3	2	1	3	3	14
3 AM to 6 AM	2	2	2	1	2	1	1	11
6 AM to 9 AM							2	2
9 AM to 12 PM		1	1	1	1	3	2	9
12 PM to 3 PM			2	1	1	3		7
3 PM to 6 PM	1		1		1	4	1	8
6 PM to 9 PM			3	1	1	1		6
9 PM to 12 PM			2			4	1	7
<b>Grand Total</b>	<b>5</b>	<b>3</b>	<b>14</b>	<b>6</b>	<b>7</b>	<b>19</b>	<b>10</b>	<b>64</b>

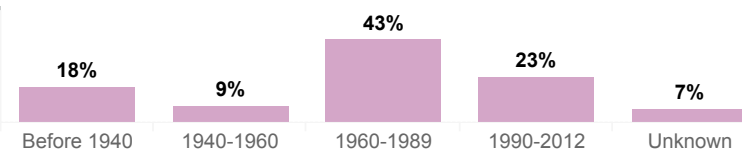
## Homes with Fatal Incidents Profile

### Victim's Distance from an Egress

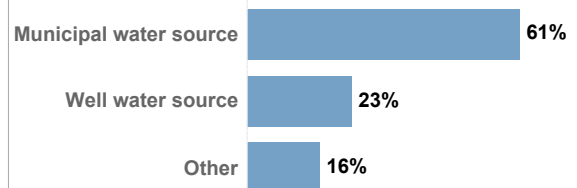


Eighty-five percent of fatal fires occurred in residences. These homes, which are mostly owned, tend to be 30-50 years old, with most being smaller than 1,500 square feet. These homes are often supplied with city or municipal water. Smoke alarms were not always determined to be present, and if they were (35% of the time), they did not necessarily alert the occupants to an emergency. Only in five percent of fatal fires did an alarm that was present also alert the occupants. Notification by an alarm saved two occupants in two separate fires. Code and safety issues were present in 75 percent of incidents, with 40 percent of incidents having more than one issue present. In 51 percent of incidents it was known the home did not have any smoke alarms present.

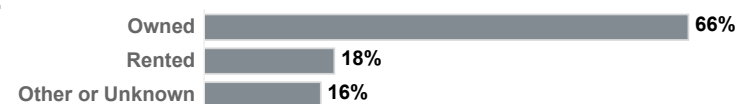
### Age of Homes



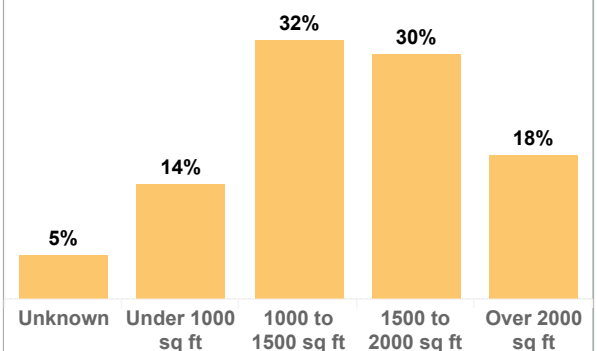
### Water Source



### Ownership Status of Homes



### Size of Homes



### Code & Safety Issues

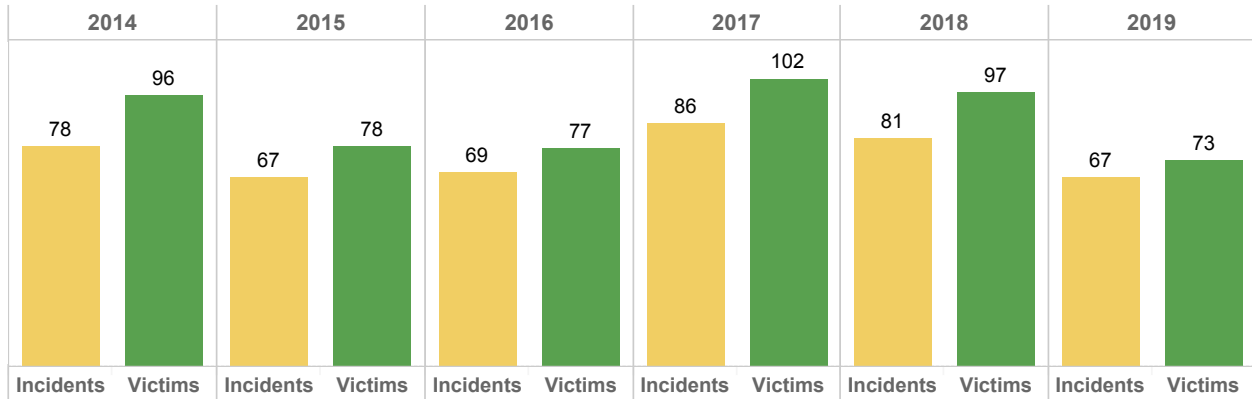
No Smoke Alarms	51%
Hoarding Conditions	37%
Issues with Egress	23%
Improper Storage of Materials	23%
Electrical Risk	21%
Trip Hazards	19%
Derelict Conditions	16%
Blocked Exits	16%
Poor Construction	9%
No Power to Property	9%
Other	7%
Issues with Smoke Alarms	7%
Unpermitted Structure	5%
Issues with Heaters	5%

### Survivors in Fatal Home Incidents

No survivors	46%
1 survivor	32%
2 survivors	9%
More than 3 survivors	9%
3 survivors	4%

# Annual and Historical Fire Fatality Information

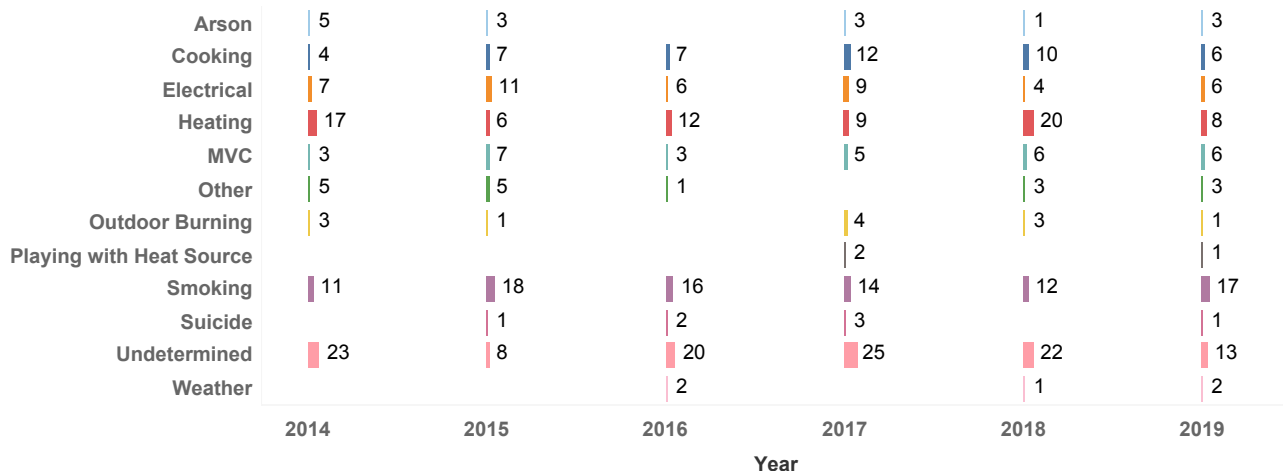
## Number of Fatal Incidents and Fire Death Victims from 2014-2019



Fire deaths and fatal fires have fluctuated over the past five years. In 2014-2018, the average number of fire victims per year is 90. During the same time frame, the average number of fatal fires per year is 76. There is a 18 percent decrease in fire deaths in 2019 compared to the average of the past five years. There is a 12 percent decrease in fatal fires in 2019 compared to the average of the past five years. While it is unknown what is responsible for this one-year decrease in fire deaths and fatal fires, possibilities include an increased presence of smoke alarms and community risk reduction for our citizens.

From 2014 to 2019, the number of "undetermined" cause of incidents decreased as researchers were better able to attribute a most probable cause. One cause of fatal fires that increased from 2014 to 2019 was smoking, from 11 fires to 17 fires. Heating fires decreased from 17 fires to eight fires.

## Most Probable Cause of Fatal Fires from 2014-2019



\*Other = Explosions and Other Car Fires (not MVC-related)

## Detailed Fatality Information

### January

Incident Date	County	Most Probable Cause	Occupancy Type	Age	Gender	Race
1/3/19	Clarendon	MVC	Vehicle	24	Male	White
1/5/19	Berkeley	Undetermined	Single-Family Dwelling	77	Female	Black
	Florence	Smoking	Mobile Home	68	Male	White
	Spartanburg	Cooking	Mobile Home	68	Male	White
1/6/19	Horry	Smoking	Single-Family Dwelling	51	Female	White
1/16/19	Laurens	Cooking	Single-Family Dwelling	42	Male	White
1/17/19	Beaufort	Undetermined	Mobile Home	21	Male	Hispanic
				28	Female	Hispanic
1/18/19	Colleton	Arson	Single-Family Dwelling	63	Female	White
1/21/19	Spartanburg	Smoking	Single-Family Dwelling	56	Female	Black
1/22/19	Charleston	Undetermined	Single-Family Dwelling	55	Male	White
	Cherokee	Electrical	Single-Family Dwelling	47	Male	White
1/27/19	Florence	Electrical	Mobile Home	52	Male	Hispanic
1/31/19	Orangeburg	MVC	Vehicle	48	Male	White

### February

Incident Date	County	Most Probable Cause	Occupancy Type	Age	Gender	Race
2/1/19	Anderson	Heating	Mobile Home	78	Male	White
2/5/19	Chesterfield	Electrical	Single-Family Dwelling	57	Male	Black
2/19/19	Pickens	Smoking	Single-Family Dwelling	64	Male	White
2/25/19	Jasper	Undetermined	Single-Family Dwelling	31	Female	Black
2/26/19	Georgetown	Smoking	Multi-Family Dwelling	30	Male	White

### March

Incident Date	County	Most Probable Cause	Occupancy Type	Age	Gender	Race
3/14/19	Lexington	Smoking	Single-Family Dwelling	69	Male	White
3/29/19	Florence	Smoking	Single-Family Dwelling	31	Male	Black



## April

Incident Date	County	Most Probable Cause	Occupancy Type	Age	Gender	Race
4/2/19	Lancaster	Cooking	Single-Family Dwelling	78	Female	White
4/5/19	Saluda	Undetermined	Single-Family Dwelling	1	Male	White
				63	Female	White
4/12/19	Spartanburg	Other vehicle fires (not MVC)	Vehicle	1	Female	Black

## May

Incident Date	County	Most Probable Cause	Occupancy Type	Age	Gender	Race
5/3/19	Greenwood	Smoking	Single-Family Dwelling	59	Female	White
5/5/19	Anderson	Smoking	Single-Family Dwelling	69	Male	White
5/17/19	Lancaster	Other vehicle fires (not MVC)	Vehicle	86	Male	Black
5/24/19	Darlington	Undetermined	Mobile Home	54	Female	White
5/31/19	Sumter	Smoking	Mobile Home	82	Female	White

## June

Incident Date	County	Most Probable Cause	Occupancy Type	Age	Gender	Race
6/7/19	Georgetown	Electrical	Single-Family Dwelling	63	Male	Black
	Horry	Unknown	Mobile Home	61	Male	White
6/29/19	Clarendon	Smoking	Mobile Home	29	Female	White
				67	Male	White

## July

Incident Date	County	Most Probable Cause	Occupancy Type	Age	Gender	Race
7/13/19	Oconee	Arson	Mobile Home	25	Male	White
				79	Male	White
	Union	Other	Retail Business	16	Male	Black
7/19/19	Richland	Electrical	Single-Family Dwelling	54	Female	Black
7/20/19	Anderson	Smoking	Mobile Home	64	Male	White
7/23/19	Horry	Smoking	Single-Family Dwelling	28	Male	White
7/26/19	Anderson	Smoking	Single-Family Dwelling	56	Male	White

## August

Incident Date	County	Most Probable Cause	Occupancy Type	Age	Gender	Race
8/5/19	Aiken	Undetermined	Mobile Home	39	Male	White
8/14/19	Chester	Weather	Single-Family Dwelling	97	Female	White
8/16/19	Clarendon	MVC	Vehicle	41	Female	Black

## September

Incident Date	County	Most Probable Cause	Occupancy Type	Age	Gender	Race
9/5/19	Charleston	Weather	Single-Family Dwelling	75	Female	White
				80	Male	White
9/17/19	Spartanburg	MVC	Vehicle	55	Male	Hispanic
9/19/19	Kershaw	Smoking	Single-Family Dwelling	79	Female	White
9/28/19	Florence	Suicide	Single-Family Dwelling	38	Male	White

## October

Incident Date	County	Most Probable Cause	Occupancy Type	Age	Gender	Race
10/1/19	Florence	Arson	Small Storage	46	Female	White
10/8/19	Charleston	Undetermined	Mobile Home	71	Male	Black
10/9/19	Richland	Playing with Fire	Single-Family Dwelling	50	Male	White
10/11/19	Saluda	Cooking	Mobile Home	41	Male	Black
10/19/19	Greenville	Cooking	Mobile Home	39	Female	White
10/24/19	Berkeley	Undetermined	Mobile Home	59	Female	Black
10/27/19	Dorchester	Cooking	Single-Family Dwelling	29	Male	Black

## November

Incident Date	County	Most Probable Cause	Occupancy Type	Age	Gender	Race
11/1/19	Horry	MVC	Vehicle	17	Female	White
				62	Female	White
11/5/19	Spartanburg	Heating	Single-Family Dwelling	69	Male	White
11/20/19	Lee	Undetermined	Single-Family Dwelling	56	Male	Black
11/26/19	Anderson	Outdoor Burning	Outdoor Area	89	Male	White
	Oconee	Heating	Single-Family Dwelling	27	Male	White
11/30/19	Clarendon	Undetermined	Single-Family Dwelling	69	Female	Black

## December

Incident Date	County	Most Probable Cause	Occupancy Type	Age	Gender	Race
12/3/19	Beaufort	Smoking	Single-Family Dwelling	58	Male	White
12/8/19	Anderson	Heating	Single-Family Dwelling	27	Male	Black
12/11/19	Horry	MVC	Vehicle	71	Male	White
12/18/19	Spartanburg	Heating	Single-Family Dwelling	63	Female	White
12/20/19	Anderson	Heating	Single-Family Dwelling	34	Female	White
	Charleston	Heating	Single-Family Dwelling	75	Female	Black
	Spartanburg	Smoking	Single-Family Dwelling	64	Male	White
		Undetermined	Single-Family Dwelling	61	Female	White
12/24/19	Lexington	Heating	Single-Family Dwelling	51	Male	Black
12/27/19	Georgetown	Electrical	Single-Family Dwelling	83	Male	Black